REMARKS

Claims 1 and 3-6 are pending in the present application. Claims 1, 3 and 5-6 are herein amended. Claims 2 is herein cancelled. No new matter has been entered.

Rejections under 35 USC §112, Second Paragraph

Claims 1-6 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The Examiner alleged as follows:

> Claim 1 recites, "...a hardening component composed of a derivative of a di- or tri-carboxylic acid of the citric acid cycle, wherein at least one carboxyl group of the carboxylic acid is modified with an electron-attracting group." It is unclear what derivatives of di- or tri-carboxylic acid of the citric acid cycle is encompassed within a derivative. The specification does not fully define what a derivative of di- or tri-carboxylic acid of the citric acid cycle is encompassed of. The specification discloses that "a di- or tri-carboxylic acid of the citric acid cycle to be used in the present invention may be malic acid, oxalacetic acid, citric acid, cis-asconitic acid, 2-ketoglutaric acid, or derivatives thereof" (see paragraph [0018] of instant specification 2006/0239958 Al).

(Office Action, page 3, item 8). Claim 2 was also rejected as being indefinite due to the recitation "derivatives thereof."

In claim 1, "derivative" has been amended to --a compound of a formula--.

Applicants respectfully request the Examiner to withdraw this rejection.

Rejections under 35 USC §112, First Paragraph

Claims 1-6 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

In claim 1, "an electron-attracting group" is amended to --one or a combination of two or more selected from the group consisting of a succinimidyl group, a sulfosuccinimidyl group, a maleimidyl group, a phthalimidyl group, an imidazolyl group, a nitrophenyl group and a tresyl group--.

Applicants respectfully request the Examiner to withdraw this rejection.

Rejections under 35 USC §102(b)

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuda et al. (JP 09-103479).

The Examiner alleged as follows:

> Matsuda teaches succinimized poly-L-glutamic acid and crosslinking the gelating and the succinimidized poly-L-glutamic acid. The instant specification discloses that "a di- or tri-carboxylic acid of the citric acid cycle to be used in the present invention may be malic acid, oxalacetic acid, citric acid, cis-asconitic acid, 2-ketoglutaric acid, or derivatives thereof" (see paragraph [0018] of instant specification 200610239958 Al). . . . L-glutamic acid is a derivative of 2-ketoglutaric acid. The dictionary defines a derivative as "A chemical substance derived from another substance either directly or by modification or partial substitution" (see p. 3 of definition, enclosed). Therefore, L-glutamic acid is a derivative of 2-ketoglutaric acid, meeting the limitation of di- or tri-carboxylic acid derivative. Furthermore, Matsuda teaches succinimidized poly-L-glutamic acid, which reads on the electron-attracting group (succinimidyl group), and the hardening component (di- or tri-carboxylic acid derivative). Therefore, the Matsuda reference teaches all of the active ingredients and components claimed in the instant claims. Matsuda reference anticipates instant claims 1-3 and 5-6.

(Office Action page 13, item 18).

Claim 1 has been amended to recite "a hardening component composed of a compound of a formula wherein at least one carboxyl group of the carboxylic acid of a di- or tri-carboxylic acid of the citric acid cycle is modified with one or a combination of two or more selected from the group consisting of a succinimidyl group, a sulfosuccinimidyl group, a maleimidyl group, a phthalimidyl group, an imidazolyl group, a nitrophenyl group and a tresyl group." Thus, claim 1 no longer recites "derivative." Nor does the recitation of claim 1 read on succinimidized poly-L-glutamic acid.

As cross-linking agent, Matsuda et al. uses poly L-glutamic acid. Matsuda et al. describes, for example, as follows:

> The poly L-glutamic acid (PLCA) used here was obtained by dialyzing the product of Ajinomoto Co., Inc. with a trade name (Ajicoat polyamino acid resin SPG) with chloride.

(Matsuda et al., paragraph [0008]). In contrast, the present invention uses a modified carboxyl acid, which is a low molecular compound.

Thus, Matsuda et al. does not teach or suggest, among other things, "a hardening component composed of a compound of a formula wherein at least one carboxyl group of the carboxylic acid of a di- or tri-carboxylic acid of the citric acid cycle is modified with one or a combination of two or more selected from the group consisting of a succinimidyl group, a sulfosuccinimidyl group, a maleimidyl group, a phthalimidyl group, an imidazolyl group, a nitrophenyl group and a tresyl group."

The adhesive of the present invention has higher adhesive power than that obtained by using poly L-glutamic acid.

For at least these reasons, claim 1 patentably distinguishes over Matsuda et al. Claims 3, 5 and 6, depending from claim 1, also patentably distinguish over Matsuda et al. for at least the same reasons. Claim 2 has been cancelled.

Rejections under 35 USC §103(a)

Claims 1-6 were rejected under 35 U.S.C. 103(a) as being obvious over Matsuda et al. (JP 09-103479) in view of Linden et al. (U.S. Patent No. 5,634,936).

As discussed above, claim 1-3, 5 and 6 patentably distinguish over Matsuda et al.

Linden et al. has been cited for allegedly disclosing that low molecular weight polymers, such as poly-L-lactic acid are soluble in DMSO and would precipitate on replacing the water miscible DMSO with water or saline solutions.

As mentioned above, claim 1 has been amended to recite "a hardening component composed of a compound of a formula wherein at least one carboxyl group of the carboxylic acid of a di- or tri-carboxylic acid of the citric acid cycle is modified with one or a combination of two or more selected from the group consisting of a succinimidyl group, a sulfosuccinimidyl group, a maleimidyl group, a phthalimidyl group, an imidazolyl group, a nitrophenyl group and a tresyl group." This recitation in claim 1 recites neither poly-L-lactic acid nor poly-L-glutamic acid. Thus, alleged descriptions on poly-L-lactic is irrelevant to amended claim 1, and they do not remedy the deficiencies of Matsuda et al.

For at least these reasons, claim 1 patentably distinguishes over Matsuda et al. and Liden et al. Claims 3-6, depending from claim 1, also patentably distinguish over Matsuda et al. and Liden et al. for at least the same reasons.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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